Response to Arguments

1. Applicant's arguments with respect to claims 1-9, 46-56, 74-78, and 80-83 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 2, 4, 46, 47, 49, 74-78, and 82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007), and in further view of in view of Gore et al. (US 02/0102950)

Regarding claim 1, Gould et al. discloses a method for displaying a quality of a wireless data transmission comprising:

receiving the wireless data transmission at a wireless receiver (Fig. 3, element 311, see column 2, lines 59-67) wherein the wireless data transmission includes multiple streams of data (see column 5, lines 35-39) and originates from multiple transmit antennae (not shown) of multiple base station radios as described in column 5, lines 40-55;

determining the quality (error rate) of the wireless data transmission for each signal (channel) expressed as values on a bar graph (see Figs. 9-12, column 5, lines 14-29) based on a quality parameter such as bit error rate (see column 3, lines 24-27) of the incoming wireless data transmission; and

displaying on a bar graph (see Figs. 9-12, column 5, lines 14-39) the quality of the wireless data transmission.

Gould et al. does not disclose the received signals originated from a spatial multiplexing system and the quality of the data transmission is based on a quality parameter and a propagation channel estimate of the data transmission, wherein the propagation channel estimate is based at least in part on a channel condition number.

However, Gould does disclose the wireless data transmission received includes multiple streams of data (see column 5, lines 35-39 and lines 56-60). Roy, III et al. further discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing in the system of Gould et al. as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

Gore et al. further discloses determining a quality of a data transmission channel based on a selected parameter such as bit error rate (see Fig. 2, block 402, see section 0025-0026) and a channel estimate of the propagation channel (see section 0026), wherein the channel estimate

includes a channel matrix which represents channel condition number. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the method/device of Gould and Roy to also use channel estimates and bit error rates to determine a quality parameter as taught by Gore et al. since Gore et al. this quality parameter can be used to select an optimal set of antennas for transmission and reception (see section 0028).

Regarding claim 2, Gould et al. discloses determining a value of the quality parameter (bit error rate) for each of the multiple incoming signals (column 3, lines 23-26).

Regarding claim 4, Gould et al. discloses the quality parameter is bit error rate (column 3, lines 23-26).

Regarding claim 46, Gould et al. discloses an apparatus (Fig. 2) for displaying a quality of a wireless data transmission comprising:

a wireless receiver as a means for receiving the wireless data transmission (Fig. 3, element 311, see column 2, lines 59-67) wherein the wireless data transmission includes multiple streams of data (see column 5, lines 35-39 and lines 56-60) and originates from multiple transmit antennae (not shown) of multiple base station radios as described in column 5, lines 40-46;

a means within the wireless receiver (Fig. 3, element 311) for determining the quality (error rate) of the wireless data transmission for each signal (channel) expressed as values on a bar graph (see Figs. 9-12, column 5, lines 14-29) based on a quality parameter such as bit error rate (see column 3, lines 24-27) of the incoming wireless data transmission; and

a display (Fig. 3, element 205) as a means for displaying on a bar graph (see Figs. 9-12, column 5, lines 14-39) the quality of the wireless data transmission.

Gould et al. does not disclose the received signals originated from a spatial multiplexing system and the quality of the data transmission is based on a quality parameter and a propagation channel estimate of the data transmission, wherein the propagation channel estimate is based at least in part on a channel condition number.

However, Gould does disclose the wireless data transmission received includes multiple streams of data (see column 5, lines 35-39 and lines 56-60). Roy, III et al. further discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing in the system of Gould et al. as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

Gore et al. further discloses determining a quality of a data transmission channel based on a selected parameter such as bit error rate (see Fig. 2, block 402, see section 0025-0026) and a channel estimate of the propagation channel (see section 0026), wherein the channel estimate includes a channel matrix which represents channel condition number. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the method/device of Gould and Roy to also use channel estimates and bit error rates to determine a quality parameter as taught by Gore et al. since Gore et al. this quality parameter can be used to select an optimal set of antennas for transmission and reception (see section 0028).

Regarding claim 47, Gould et al. discloses a means within the wireless receiver (Fig. 3, block 311) for determining a value of the quality parameter (bit error rate) for each of the multiple incoming signals (column 3, lines 23-26).

Regarding claim 49, Gould et al. discloses the display (Fig. 3, block 205) comprises means for displaying the bit error rate on a bar graph (see Figs. 9-12, column 5, lines 14-39).

Regarding claims 74, Gould et al. does not disclose the multiple signals are received via two or more receive antennas.

However, Roy, III et al. discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing in the system of Gould et al. as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

Regarding claim 76, Gould et al. discloses an apparatus (Fig. 2 and Fig. 3) comprising:

a wireless receiver (Fig. 3, block 311), to receive wireless incoming data signals (see column 2, lines 59-67) which output voice data (see column 3, lines 30-33) wherein the wireless transmission includes multiple streams of data (see column 5, lines 35-39 and lines 56-60) and originates from multiple transmit antennae (not shown) of multiple base station radios as described in column 5, lines 40-55; and

a quality display unit (Fig. 3, block 205), responsive to the wireless receiver, to determine a quality (error rate) of received incoming signals for different channels (bands) and express this

value on a bar graph (see Figs. 9-12, column 5, lines 14-29) based, at least in part on a quality parameter such as bit error rate for each incoming signal (column 3, lines 23-27 and column 4, lines 40-42) associated with the incoming signals, and to provide a display (Figs. 9-12) of such quality of the incoming wireless signals.

Gould et al. does not disclose the received signals originated from a spatial multiplexing system and the quality of the data transmission is based on a quality parameter and a propagation channel estimate of the data transmission, wherein the propagation channel estimate is based at least in part on a channel condition number.

However, Gould does disclose the wireless data transmission received includes multiple streams of data (see column 5, lines 35-39 and lines 56-60). Roy, III et al. further discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing in the system of Gould et al. as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

Gore et al. further discloses determining a quality of a data transmission channel based on a selected parameter such as bit error rate (see Fig. 2, block 402, see section 0025-0026) and a channel estimate of the propagation channel (see section 0026), wherein the channel estimate includes a channel matrix which represents channel condition number. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the

method/device of Gould and Roy to also use channel estimates and bit error rates to determine a quality parameter as taught by Gore et al. since Gore et al. this quality parameter can be used to select an optimal set of antennas for transmission and reception (see section 0028).

Regarding claim 77, Gould et al. discloses a terminal processor (Fig. 3, block 305) representing a quality indicator processor responsive to the bit error rates determined for each acquired signal of the scanned set of channels as described in column 4, lines 26-42, wherein the terminal processor determines quality screens provided to the display representing the (bit error rate) information provided for each signal of the set of channels as described in column 4, lines 49-53.

Regarding claim 78, Gould et al. discloses the quality display, (Fig. 3, block 205), responsive to the terminal processor (see column 4, lines 49-53), for displaying the quality screens.

Regarding claim 82, Gould et al. does not disclose the multiple signals are received via two or more receive antennas.

However, Roy, III et al. discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing in the system of Gould et al. as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

4. Claims 3, 5, 48, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007) in view of Gore et al. (US 2002/0102950) as applied to claims 1 and 46, and in view of Servais et al. (previously cited in Office Action 8/8/2006).

Regarding claim 3, Gould et al., Roy, III et al., and Gore et al. do not disclose determining an aggregate value of the bit error for the multiple incoming signals.

However, Servais et al. discloses determining an average (aggregate) value of the bit error rate for a plurality of data frames (signals), see column 4, lines 49-59. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to determine an average bit error rate of multiple signals in a communication channel in the method of Gould et al., Roy, III et al., and Gore et al. as taught by Servais since Servias et al. states the bit error rate is utilized to characterized the performance of a communication channel and support channel making decisions in communication systems (column 2, lines 63-67).

Regarding claim 5, Gould et al discloses the quality parameter in bit error rate (column 3, lines 23-27

Regarding claim 48, Gould et al. does not disclose a means for determining an aggregate value of the bit error for the multiple incoming signals.

However, Servais et al. discloses a means for determining an average (aggregate) value of the bit error rate for a plurality of data frames (signals), see column 4, lines 49-59. Therefore, it would have been obvious to one skilled in the art at the time the invention was made to determine an average bit error rate of multiple signals in a communication channel in the apparatus of Gould et al., Roy, III et al., and Gore et al. as taught by Servais since Servias et al.

states the bit error rate is utilized to characterized the performance of a communication channel and support channel making decisions in communication systems (column 2, lines 63-67).

Regarding claim 75, Roy, III et al. discloses a spatial multiplexing/demultiplexing system (see column 12, line 66-column 13, line 26) for transmitting/receiving a plurality of signal streams. The signals are transmitted and received by the use of multiple antennas (see column 13, lines 36-44). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement spatial multiplexing as disclosed by Roy, III et al. in order to transmit/receive multiple streams of data since Roy, III et al. states spatial multiplexing eliminates co-channel interference (see column 13, lines 9-17).

5. Claims 6, is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007) in view of Gore et al. (US 2002/0102950) as applied to claims 2, and in view of Mitlin et al. (previously cited in Office Action 8/8/2006).

Regarding claim 6, Gould et al. discloses measuring a received signal strength of incoming signals (column 4, lines 40-48) in units of decibels (dBm) and displaying these values (see Fig. 6, column 4, lines 62-67). Gould et al., Roy, III et al., and Gore et al. do not disclose determining a signal-to-noise ratio for multiple signals.

Mitlin et al. discloses acquiring a signal-to-noise ratio for a subset of channels (signals) and then determining an average signal-to-noise ratio for the subset of channels (see, column 2, lines 42-47). Therefore, it would have been obvious to one skilled in the art that since signal-to-noise-ratio can also be expressed in decibels to calculate signal-to-noise ratios for signals (channels) in Gould et al., Roy, III et al., and Gore et al. as disclosed by Mitlin et al. to be

displayed since Mitlin et al. states the signal-to-ratio can be used to select parameters such as forward error correction parameters (column 2, lines 42-49).

6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007) in view of Gore et al. (US 2002/0102950) as applied to claim 2, and in view of Harrow et al. (previously cited in Office Action 8/8/2006).

Regarding claim 8, Gould et al., Roy, III et al., and Gore et al. do not disclose determining the number cyclic redundancy check failures.

However, Harrow et al. discloses calculating and displaying cyclic redundancy check (CRC) failures using a graphical representation (see, column 11, lines 55-67), wherein the viewing of the CRC failures is determined by a user. Therefore, it would have been obvious to determine and display CRC failures in Gould et al., Roy, III et al., and Gore et al. as disclosed by Harrow et al. to allow the device of Gould et al. to view information in an intuitive manner (see Harrow et al., column 1, lines 15-18).

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007), in view of Gore et al. (US 2002/0102950) and in view of Servais et al. (previously cited in Office Action 8/8/2006) as applied to claim 3, and in further view of Mitlin et al. (previously cited in Office Action 8/8/2006).

Regarding claim 7, Gould et al. discloses measuring a received signal strength of incoming signals (column 4, lines 40-48) in units of decibels (dBm) and displaying these values

(see Fig. 6, column 4, lines 62-67). Gould et al., Roy, III et al., Gore et al. nd Servais et al. do not disclose determining a signal-to-noise ratio for multiple signals.

Mitlin et al. discloses acquiring a signal-to-noise ratio for a subset of channels (signals) and then determining an average signal-to-noise ratio for the subset of channels (see, column 2, lines 42-47). Therefore, it would have been obvious to one skilled in the art that since signal-to-noise-ratio can also be expressed in decibels to calculate signal-to-noise ratios for signals (channels) in Gould et al., Roy, III et al., Gore et al. nd Servais et al. as disclosed by Mitlin et al. to be displayed since Mitlin et al. states the signal-to-ratio can be used to select parameters such as forward error correction parameters (column 2, lines 42-49).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (U. S. Patent No. 5, 642, 353), in view of Gore et al. (US 2002/0102950) in view of Servais et al. (previously cited in Office Action 8/8/2006) as applied to claim 3, and in further view of Harrow et al. (previously cited in Office Action 8/8/2006).

Regarding claim 9, Gould et al., Roy, III et al., Gore et al., and Servais et al. do not disclose determining the number cyclic redundancy check failures.

However, Harrow et al. discloses calculating and displaying cyclic redundancy check (CRC) failures using a graphical representation (see, column 11, lines 55-67), wherein the viewing of the CRC failures is determined by a user. Therefore, it would have been obvious to determine and display CRC failures in Gould et al., Roy, III et al., Gore et al., and Servais et al. as disclosed by Harrow et al. to allow the device of Gould et al. to view information in an intuitive manner (see Harrow et al., column 1, lines 15-18).

9. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006), in view of Roy, III et al. (previously cited in Office Action 4/4/2007) in view of Gore et al. (US 2002/0102950) in view of Servais et al. (previously cited in Office Action 8/8/2006) as applied to claim 48, and in further view of Waschura et al. (previously cited in Office Action 8/8/2006).

Regarding claim 50, Gould et al., Roy, III et al, Gore et al. and Servais et al. do not disclose displaying the average (aggregate) bit error rate value.

However, Waschura et al. discloses a bit error tester for displaying an average error rate (column 1, lines 43-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the device of Gould et al., Roy, III et al., Gore et al. and Servais et al. to display an average error rate as disclosed by Waschura et al. since Gould et al. states determining and displaying these parameters such as bit error rate can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

10. Claim 51, 56, and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007), and in view of Gore et al. (2002/0102950) as applied to claims 49 and 76, in view of Noe et al. (previously cited in Office Action 8/8/2006).

Regarding claim 51, Gould et al., Roy, III et al., and Gore et al. do not disclose the display comprises LED indicators. However, Gould et al. does disclose displaying the signal strength of received signals (see Fig. 6, column 4, lines 62-67). Noe et al. further discloses using multiple LED indicators (Fig. 7, elements 40A-E, column 5, lines 41-48) to display the signal strength of multiple signals (applied to RAM, processor, etc.). Therefore, it would have been

obvious to one skilled in the art at the time the invention was made to display the signal strength using LED indicators in Gould et al., Roy, III et al., and Gore et al. as disclosed by Noe et al. since Gould et al. discloses determining and displaying these parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

Regarding claim 56, Gould et al. further discloses determining and displaying a channel quality parameter such as bit error rates corresponding to different frequency channels (bands), see column 5, lines 22-29. Gould et al. also discloses determining and displaying a data quality parameter such as signal strength for a multiple of received signals (see column 5, lines 7-13). Gould et al., Roy, III et al., and Gore et al. do not disclose displaying the channel quality parameter in a first set of LED indicators or the data quality parameter in a second set of LED indicators.

However, Noe et al. further discloses using multiple sets of LED indicators (Fig. 7, elements 40A-E, column 5, lines 41-48), wherein each set of LED indicators is used to display the signal strength of separate signals (signals applied to RAM, processor, etc.). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the data and channel quality parameters using the sets of LED indicators in Gould et al., Roy, III et al., and Gore et al. as disclosed by Noe et al. since Gould et al. discloses determining and displaying these parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

Regarding claim 83, Gould et al. further discloses determining and displaying a channel quality parameter such as bit error rates corresponding to different frequency channels (bands),

see column 5, lines 22-29. Gould et al. also discloses determining and displaying a data quality parameter such as signal strength for a multiple of received signals (see column 5, lines 7-13). Gould et al., Roy, III et al., and Gore et al. do not disclose displaying the channel quality parameter in a first set of indicators or the data quality parameter in a second set of indicators.

However, Noe et al. further discloses using multiple sets of LED indicators (Fig. 7, elements 40A-E, column 5, lines 41-48), wherein each set of LED indicators is used to display the signal strength of separate signals (signals applied to RAM, processor, etc.). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the data and channel quality parameters using the sets of LED indicators in Gould et al., Roy, III et al., and Gore et al. as disclosed by Noe et al. since Gould et al. discloses determining and displaying these parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

11. Claims 52 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007), and in view of Gore et al. (US 2002/0102950) as applied to claim 49, and in view of Fordham et al. (previously cited in Office Action 8/8/2006).

Regarding claim 52, Gould et al., Roy, III et al., and Gore et al. do not disclose the display comprises analog meters. However, Fordham et al. discloses displaying a received digital signal using an analog meter (see column 4, lines 41-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the signals or parameters using analog meters in Gould et al., Roy, III et al., and Gore et al. as disclosed by Fordham et al. since Gould et al. discloses determining and displaying signal parameters such as

signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

Regarding claim 55, Gould et al. further discloses determining and displaying a channel quality parameter such as bit error rates corresponding to different frequency channels (bands), see column 5, lines 22-29. Gould et al. also discloses determining and displaying a data quality parameter such as signal strength for a multiple of received signals (see column 5, lines 7-13). Gould et al. does not disclose displaying the channel quality parameter in a first analog meter or the data quality parameter in a second analog meter.

However, Fordham et al. discloses displaying a received digital signal using a plurality of analog meters (see column 3, lines 35-42 and column 4, lines 41-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the data and channel signal (parameters) using the plurality of analog meters in Gould et al. as disclosed by Fordham et al. since Gould et al. discloses determining and displaying signal parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

12. Claim 53 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007) in view of Gore et al. (2002/0102950) in view of Servais et al. (previously cited in Office Action 8/8/2006) and in view of Waschura (previously cited in Office Action 8/8/2006) as applied to claim 50, and in further view of Noe et al. (previously cited in Office Action 8/8/2006).

Regarding claim 53, Gould et al., Roy, III et al., Gore et al., Servais et al., and Waschura et al. do not disclose the display comprises separate sets of LED indicators wherein each set of LED indicators corresponds to multiple signals. However, Gould et al. does disclose displaying the signal strength of received signals (see Fig. 6, column 4, lines 62-67). Noe et al. further discloses using multiple sets of LED indicators (Fig. 7, elements 40A-E), wherein each set of LED indicators is used to display the signal strength of separate signals (signals applied to RAM, processor, etc.). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the signal strength using LED indicators in Gould et al., Roy, III e al., Gore et al., Servais et al., and Waschura et al. as disclosed by Noe et al. since Gould et al. discloses determining and displaying these parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

13. Claim 54 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (previously cited in Office Action 4/4/2007), in view of Gore et al. (US 20020102950) in view of Servais et al. (previously cited in Office Action 8/8/2006) and in view of Waschura et al. (previously cited in Office Action 8/8/2006) as applied to claim 50, and in further view of Fordham et al. (previously cited in Office Action 8/8/2006).

Regarding claim 54, Gould et al., Roy, III et al., Gore et al. , Servais et al., and Waschura et al. do not disclose the display comprises an analog meter. However, Fordham et al. discloses displaying a received digital signal using an analog meter (see column 4, lines 41-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to display the signals or (aggregate) parameters using analog meters in Gould et al., Roy,

III et al., Gore et al., Servais et al., and Waschura et al. as disclosed by Fordham et al. since Gould et al. discloses determining and displaying these parameters such as signal strength can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

14. Claims 80 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (previously cited in Office Action 8/8/2006) in view of Roy, III et al. (U. S. Patent No. 5, 642, 353), and in view of Gore et al. (US 2002/0102950) as applied to claim 76, and in further view of Waschura et al. (previously cited in Office Action 8/8/2006).

Regarding claims 80 and 81, Gould et al. discloses determining the quality (error rate) of the wireless data transmission for multiple signal streams (channels) expressed as values on a bar graph (see Figs. 9-12, column 5, lines 14-29) based on a quality parameter such as bit error rate (see column 3, lines 24-27) of the incoming wireless data transmission; and displaying on a bar graph (see Figs. 9-12, column 5, lines 14-39) the quality of selected (subsets) wireless data transmissions. Gould et al., Roy, III et al., and Gore et al. do not disclose displaying an average (mathematical combination) bit error rate value for the multiple (spatial) incoming signals.

However, Waschura et al. discloses a bit error tester for displaying an average error rate (column 1, lines 43-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to modify the device of Gould et al., Roy, III et al., and Gore et al. to display an average error rate as disclosed by Waschura et al. since Gould et al. states determining and displaying these parameters such as bit error rate can be used to address inadequate signal coverage (column 1, lines 23-25) by adjusting base stations.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CURTIS B. ODOM whose telephone number is (571)272-3046. The examiner can normally be reached on Monday- Friday, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on 571-272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Curtis B. Odom/
Primary Examiner, Art Unit 2611
April 13, 2008